

## ABSTRACT OF THE DISCLOSURE

In an alternator, failure in a power supply line connected to an output terminal of a rectifier is detected. Upon detection of a failure in this power supply line, power generation is suppressed for a predetermined period that is longer than the time constant of a field winding of the alternator. Preferably, a high voltage pulse is detected to discriminate a first condition where a single high voltage pulse is generated when an electrical load connected to the power supply line is cut off and a second condition where a high voltage pulse is repeatedly and frequently generated when a failure occurs in the power supply line. Only when the second condition is discriminated, power generation suppression control of the alternator is conducted.